UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/757,897	01/15/2004	Mark Molitor	HOL01 P445	4738

277 7590 03/14/2008

PRICE HENEVELD COOPER DEWITT & LITTON, LLP
695 KENMOOR, S.E.
P O BOX 2567
GRAND RAPIDS, MI 49501

EXAMINER	
WILHELM, TIMOTHY	

ART UNIT	PAPER NUMBER
3616	

MAIL DATE	DELIVERY MODE
03/14/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/757,897	MOLITOR, MARK	
	Examiner	Art Unit	
	Timothy D. Wilhelm	3616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 December 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *2-20 and 22-37* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *22-28 and 37* is/are allowed.

6)☒ Claim(s) *2-20 and 29-37* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

This office action was made in response to an amendment filed by Applicant on 11/27/2007.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 2-9,11-14,32, and 36 are rejected under 35 U.S.C. 102(b) as being anticipated by VanDenberg (5,718,445). VanDenberg discloses a vehicle suspension assembly 1, comprising a first control arm 14 having a first end 35 and a second end, wherein the first end 35 of the first control arm 14 includes a first bushing 28 adapted to pivotally couple the first control arm 14 to a first frame member of a vehicle, and wherein the second end of the first control arm 14 is pivotally coupled to an axle 12 via linkage member 20 which extends upwardly from the axle 12, a second control arm 14 having a first end and a second end, wherein the first end of the second control arm includes a second bushing 28 adapted to pivotally couple the second control arm to a second frame member of a vehicle, and wherein the second end of the second control arm is adapted to be pivotally coupled to the axle 12 of the vehicle via linkage member 20, a rigid, tube-shaped first torsional member 31 coupled to the first control arm 14 rearward of the first bushing 28 and forward of the axle 12, and coupled to the second

control rearward of the first bushing 28 and forward of the axle 12, a third control arm having a first end and a second end, wherein the first end of the third control arm is adapted to be pivotally coupled to a third frame member 7 of the vehicle, and wherein the second end of the third control arm is adapted to be pivotally coupled to the second frame member of the vehicle, a fourth control arm wherein the first end of the third control arm is adapted to be pivotally coupled to the third frame member 7 of the vehicle, and wherein the second end of the third control arm is adapted to be pivotally coupled to an axle 13, first and second pneumatic suspension bags positioned between the first and second frame members and axle 12, and third and fourth pneumatic suspension bags positioned between the first and second frame members, respectively, and axle 13, and a rigid second torsional member coupled to the third and fourth control arms. The torsional member 31 is situated such that it is proximate the first end 35 of the first control arm 14. The first and second ends of the first, second, and third control arms 14 include elastically deformable bushings 28 which have elongated apertures extending through the center.

3. With regard to claims 4 and 5, VanDenberg discloses the vehicle suspension assembly 1 described above wherein the first end 35 of the first control arm 14 is adapted to be pivotally coupled with a first linkage member 5 that is fixedly attached to and extends downwardly from the first frame member 16, the first end of the second control arm is adapted to be pivotally coupled with a second linkage member, identical to the first, that is fixedly attached to and extends downwardly from the second frame member.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over VanDenberg in view of Mair (6,409,280). VanDenberg discloses a vehicle suspension assembly comprising three control arms 24,24,22 and a rigid torsion member 60 coupled to the first and second control arms 24,24. VanDenberg discloses the present invention except for the torsional member including a first flanged end and a second flanged end, and the first flanged end being fixedly coupled to the first control arm via at least one bolt extending through at least one aperture in the first flanged end and at least one aperture in the first control arm, and the second flanged end being fixedly coupled to the second control arm via at least one bolt extending through at least one aperture in the second flanged end and at least one aperture in the second control arm. Mair teaches truck and trailer hub comprising an axle with a flanged end flanged end 20 that is fixedly coupled to a wheel assembly via a plurality of bolts 21 extending through corresponding apertures in the flange and wheel assembly. This is a commonly known means of coupling one object to another. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to apply the teachings of Mair of the

flanged tube connection to the two ends of the tube-shaped torsion member to create more secure and rigid attachments of the torsion member to the control arms.

6. Claims 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over VanDenberg in view of Bell (1,984,565). VanDenberg discloses the present invention except for the first and the second control arms 24,24 being substantially L-shaped defining an elbow along the length of each of the control arms, and on the elbow of which the torsion bar is connected. Bell teaches a vehicle wheel suspension assembly with L-shaped control arms 31 on which a bar 29 is connected to the elbow. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have applied the teaching of Bell of L-shaped control arms to the vehicle suspension assembly of Pierce ('12) and to have coupled the torsion bar to the elbows of the first and second control arms to allow for the torsion member to be coupled to the control arm at a spot other than the connecting point between the control arm and the vehicle frame member while still being connected to the end of the control arm.

7. Claim 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over VanDenberg et al in view of Goby (2,823,927). VanDenberg discloses the present invention except for control arms with forked ends. Goby teaches a vehicle suspension system 1 comprising at least one control arm 4, the end of which is fork-shaped and attached to the vehicle's axle 7. It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the teachings of Goby's fork-shaped control arm to the vehicle suspension assembly of VanDenberg et al to reduce friction between the axle and the control arm.

8. Claims 18-20 and 29-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over VanDenberg in view of Conover (6,832,772). Vandenberg discloses the present invention except for the torsional member being pivotally attached to the first and second control arms. Conover teaches a torsion bar 5 that is configured to be pivotally attached to a pair of control arms. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the suspension of VanDenberg with the pivotally attached torsional member of Conover to allow for adjustability in roll stiffness.

Allowable Subject Matter

9. Claims 22-28 and 37 are allowed.

Response to Arguments

10. Applicant's arguments filed 12/27/2007 have been fully considered but they are not persuasive. With regard to Applicant's argument about the placement of the torsional member with respect to the control arms, Examiner still maintains his rejection on the basis of the word proximate being a relative term, as stated in the previous office action. Even on its own, the torsional member of Vandenberg is proximate the control arm's first end as it is only a short distance away. Regarding Applicant's argument that the Mair patent is nonanalogous art, Examiner still maintains his rejection on the basis that Mair teaches that flange connections such as those claimed by Applicant are common knowledge to anyone of ordinary skill in the art. Mair simply shows that it

would be obvious to connect a metal tubular member to another member in the manner described in claim 10. Regarding Bell, the prior art shows that L-shaped control arms are common in the art, as is the same with the Goby reference and its control arm's fork-shaped end, and thus Examiner maintains his rejection on the basis that it would have been simple design choice to use these iterations of control arms. Regarding Goby's fork-shaped arm, Goby teaches that it would have been obvious to replace the bushing assembly of VanDenberg with the connection using the forked end assembly of Goby. With regard to Applicant's claim that the torsion member of the Conover reference is not disclosed as being pivotably attached to the control arms, Examiner maintains that the torsion member is indeed pivotably attached at its most base form to the control arms because the torsion member is attached in a manner at the control arms that would allow it to pivot without bolt 6 in place.

Conclusion

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy D. Wilhelm whose telephone number is 571-272-6980. The examiner can normally be reached on 9:00 AM to 5:30 PM Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Dickson can be reached on 571-272-6669. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Timothy D Wilhelm/
March 3, 2008

Timothy D Wilhelm
Examiner
Art Unit 3616

/Anne Marie M Boehler/
Primary Examiner, Art Unit 3611
TDW

Application Number	Application/Control No.	Applicant(s)/Patent under Reexamination	
	10/757,897	1	
	Examiner	Art Unit	
	Timothy D. Wilhelm	3616	